

REMARKS

In the Office Action dated May 17, 2006, claims 1-20 are pending and claims 1-20 are rejected. The rejection is made final. Reconsideration is requested for at least the following reasons.

The present invention describes and, as set forth in claim 1, claims a sheet feeding apparatus comprising:

a regulating unit provided so as to be slidable on the sheet container for regulating a set position of a sheet;
a position detector for detecting a position of the regulating unit; and
a contact detector for detecting a contact state between the uppermost layer of the sheets contained in the sheet container and the sheet conveying unit,
wherein the elevation/lowering driving unit lowers the sheet container when a change in the position of the regulating unit is detected by the position detector in a state in which the uppermost layer of the sheets contacts the sheet conveying unit.

None of the cited prior art, taken alone or in combination, teach or suggest the presently claimed sheet feeding apparatus.

In addition, none of the cited art, taken alone or in combination, teach or suggest the claimed receiving unit for receiving information according to a lowered amount of the sheet container or the claimed storage for storing the received information.

Claims 1-20 are rejected under 35 U.S.C. §103(a) over Hattori et al. ("Hattori"; U.S. 6,091,927) in view of Hirota et al. ("Hirota "; U.S. 6,585,258). Applicants strongly disagree. Nowhere does Hattori, nor Hirota, nor their combination teach or suggest a sheet feeding apparatus **wherein the elevation/lowering driving unit lowers the sheet container when a change in the position of the regulating unit is detected by the position detector in a state in which the uppermost layer of the sheets contacts the sheet conveying unit**, as claimed herein.

The Examiner states that:

It would have been obvious to one of ordinary skill in the art at the time invention was made, to combine the teaching to Hattori et al. and Hirota et al. to modify the apparatus to include sensors and a regulating unit 13 where a change in the position of the regulating unit 13 can be detected by the sensors and as a result remove the sheet container 7 from the sheet conveying unit by means of the elevation lowering driving unit 33, as a result, be able to add or load documents whenever the position of the regulating unit is changed.

This conclusion by the Examiner is wholly unsupported in the cited prior art references. Neither reference even suggests that it would be desirable for the apparatus to **lower the sheet container when a change in the position of the regulating unit is detected by the position detector in a state in which the uppermost layer of the sheets contacts the sheet conveying unit.** Applicants respectfully submit that the conclusion of the Examiner is merely unsupported speculation based on hindsight gained by the present disclosure.

The Examiner also states that:

Hattori et al. teaches when the elevation lowering unit 33 is driven, it raises the sheet container 7 in order to bring the documents 5 into pressing contact with the sheet conveying unit 8. It is understood to mean that when a stack of media sheets of unknown height are raised and is continued to be raised, until the top most media sheet initiates contact with the sheet conveying unit 8, at some point of reference the elevation lowering unit 33 stops driving the sheet container upwards, this is understood to be taken as a sensory input which dictates stopping of the elevation lowering unit 33 from continuously raising the media sheets beyond the sheet conveyance unit 8 (Col. 5 line 8-15).

However, the fact that the bottom plate motor 33 stops when the documents 5 are in pressing contact with the pick-up roller does not require a contact detector as presently claimed. The raising of the bottom plate is stopped by the pressing contact with the roller and accommodated by a slipping clutch mechanism. It is not seen how the disclosure by Hattori at col. 5, lines 8-15 would have made the use of the presently claimed contact sensor obvious to one of ordinary skill in the art.

In the present invention, a detector S2 is positioned to sense an upward motion of roller R1 for detecting a contact state between the uppermost layer of the sheets contained in the sheet container and the sheet conveying unit. No such detection device is suggested by Hattori.

The Examiner admits that "Hattori et al. does not disclose a regulating unit as to being disposed and positioned on the sheet container nor does he disclose a position detector for detecting the position of the regulating unit." Hirota is cited to make up for this deficiency. However, Hirota also fails to teach or suggest a regulating unit as to being disposed and positioned on the sheet container nor does he disclose a position detector for detecting the position of the regulating unit. In Hirota, the document tray 2 is provided with two size detection sensors S1 for **detecting the length of the document in the feeding direction** (Col. 5, lines 34-36). Thus, although Hirota discloses sensing the length of a document, **no detection of the position of a regulating unit** is disclosed or suggested by Hirota.

Regarding the claimed receiving unit and storage, Hattori states that "[t]he bottom plate 7 is lowered to its preselected position away from the pick-up roller." The Examiner considers that the term "preselected" suggests the presence of some kind of means which is storing information about such "preselected" position for adjusting the position to which the bottom plate is lowered. However, a mechanism for allowing the bottom plate 7 to be lowered to a certain position is not inherently a combination of a receiving unit and storage, as claimed herein. For example, such a mechanism could consist of a micro switch that is positioned at any "preselected" position and is turned off by contact with any part of the bottom plate to stop driving the motor 33. Other variable mechanical stops could readily be envisioned by one skilled in the art. Thus, the combination of the presently claimed receiving unit and storage is not required for the described function of Hattori. Applicants respectfully submit that a disclosure of a receiving unit and storage by Hattori is mere speculation by the Examiner.

Therefore, it is not seen how the presently claimed invention would have been obvious to one of ordinary skill in the art in view of any combination of Hattori and Hirota.

An early reconsideration and notice of allowance are earnestly solicited.

Respectfully submitted,



Date: 15 Aug, 2006

George W. Neuner
Reg. No. 26,964

EDWARDS ANGELL PALMER & DODGE LLP
P.O. Box 55874
Boston, MA 02205

Tel: (617) 439-4444

Customer No. 21874

BOS2_548478.1